# LANDSAT MONTHLY UPDATE

January 2003

The Landsat Program is managed by the U.S. Geological Survey under authority established by Presidential Decision Directive NSTC-3.

## Program News

### Acting International Coordinator

Mr. Steve Covington has been appointed Acting Coordinator for the Landsat 7 International Activities. Mr. Covington works in the Landsat Program as Senior Project Leader for the Aerospace Corporation at the NASA Goddard Space Flight Center, Code 428.1, Greenbelt, MD 20771. He can also be reached by phone at 301-614-5211, fax 301-614-5263, or e-mail steven.covington.1@gsfc.nasa.gov.

### IGS Metadata

IGS Metadata from Canada, Australia, South Africa, China, Argentina, and Europe continue to be archived successfully. Matera, Italy began archiving metadata at the USGS EROS Data Center (EDC) on December 27, 2002. Metadata and browse from Brazil (CUB) were successfully archived from 8mm tapes on January 23, 2003. Thailand (BKT) stopped metadata production January 1, 2003, to perform system updates. As of January 31, 2003, there were 14,582 Landsat 7 IGS subintervals archived for 238,037 Landsat 7 Worldwide Reference System (WRS) scenes. Japan (HAJ) plans to resume transferring metadata to EDC sometime this Spring.

### Landsat 7 Flight Operations Exceeds Six Sigma Performance

Landsat 7 Flight Operations had an outstanding year in 2002, capping it off with the celebration of 366 days without an operator error. This performance is well above the Six Sigma standard of proficiency the Landsat 7 Flight Operations Team holds to, and this is the second time their record has exceeded one year without an error.

Landsat 7 Flight Operations is a complex arena, presenting nearly 940 thousand “opportunities” a year to succeed. Apart from the daily rigors of normal operations, Landsat 7 Flight Ops enhanced the spacecraft’s star catalog, performed 22 delta velocity maneuvers, executed a detailed dual-burn delta inclination maneuver, performed special instrument cool-down imaging, addressed several spacecraft anomalies, dodged the Leonid meteor shower, and successfully performed calendar-year-end rollover operations. In conjunction with all of these challenging spacecraft activities, the team re-engineered all of the control center interfaces in order to implement the Landsat 7 backup Mission Operations Center (bMOC), and also helped to integrate a new ground station into its network.

Tegan Collier, Landsat 7 Project Manager, presents the “Six Sigma Error-Free Operations” award to Ed Callaway, Landsat 7 Realtime Operations Supervisor and Rich Lonigro, Landsat 7 FOT Manager.

## Technical News

### Data Validation

The Maspalomas, Spain ground station provided the USGS with RCC data for their scheduled biannual revalidation. The RCC data was successfully revalidated and found to be of equivalent quality to the corresponding USGS data.

**Landsat 5 Radiometry Notice**

During the latest analysis of the NLAPS Landsat 5 TM processing capability, radiometric differences were discovered which vary according to band and acquisition date. Please note that these differences would primarily impact users who are converting to absolute scale (e.g. radiance, reflectance, etc.) and in many cases this should not affect the scene's usability for image interpretation, classification, or other purposes.

Landsat 5 TM data acquired after 1988 was found to have a linearly increasing radiometric difference due to changing lamp response. This difference affects bands 2, 3, and 4 in particular, and increases over time for all bands. In addition, a separate error appears to have been introduced into the processing of recently acquired scenes, due to an apparent light leak. This second error particularly affects bands 1, 2, and 3 and was found to occur within TM scenes that were acquired between 2000 and 2002.

Staff are currently working to implement an enhancement to the NLAPS radiometric processing that will allow the data to be processed to within an acceptable tolerance. This new enhancement is expected to be in place by the end of March 2003.

**For the interim period (12/31/02 to 3/31/03), please be aware that all Landsat 5 TM data can only be purchased on an "as is" basis, because product returns will not be accepted if the user encounters problems with the radiometric results. (**http://edc.usgs.gov/products/satellite/tm.html)

## Meetings

**LTWG-13**

The Landsat Technical Working Group (LTWG-13) meeting will be held in Cordoba, Argentina on March 31- April 3, 2003. The Comision Nacional de Actividades Espacialles (CONAE) will host the sessions. Coordination and planning for the meeting is being done by Mr. Steve Covington (see previous article for contact information.) Further information and registration can be arranged by contacting him.

**The Landsat monthly update is an informal communication tool, prepared monthly and distributed electronically to USGS Landsat partners, to provide information about Landsat activities and related topics of interest. If you have any ideas, comments, corrections, or successes you would like to share with the Landsat community, please contact Ronald Beck, USGS Landsat team, at the following e-mail address: beck@usgs.gov.**

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